

WHAT IS CLAIMED IS:

1. A composite system for radiation therapy, comprising:

a CT scanner for checking the position of an affected portion of a patient to be irradiated;

an irradiation apparatus for disposing, on the basis of positional information of the affected portion checked by said CT scanner, the patient at a specific position at which the affected portion is aligned to an irradiation position, and performing irradiation to the affected portion;

a common bed used for said CT scanner and said irradiation apparatus, in a state that the patient lies on said common bed,; and

moving means for moving the patient from said CT scanner to the specific position of said irradiation apparatus;

wherein said moving means moves the patient on said common bed to said specific position by causing either of linear movement of said CT scanner and said irradiation apparatus, linear movement of said CT scanner and curved movement of said irradiation apparatus, curved movement of said CT scanner and said irradiation apparatus and linear movement of said CT scanner, linear movement of said CT scanner and said common bed, and linear movement of said CT scanner and curved movement of said common bed.

2. A composite system for radiation therapy according to claim 1, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and said irradiation apparatus; and

said moving mechanism comprises a linear moving mechanism for said CT scanner, and a linear moving mechanism for said irradiation apparatus, said linear

moving mechanisms being disposed such that the movement directions of said CT scanner and said irradiation apparatus cross each other; and

said common bed is disposed in the vicinity of a position to which said CT scanner and said irradiation apparatus are movable.

3. A composite system for radiation therapy according to claim 1, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and said irradiation apparatus; and

said moving mechanism comprises a linear moving mechanism for said CT scanner and a linear moving mechanism for said irradiation apparatus, said linear moving mechanisms being disposed such that the movement directions of said CT scanner and said irradiation apparatus cross each other;

said common bed is disposed in the vicinity of a position to which said CT scanner and said irradiation apparatus are movable; and

said CT scanner further includes a linear moving mechanism movable in the same direction as the movement direction of said irradiation apparatus.

4. A composite system for radiation therapy according to claim 1, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and curvedly moving said irradiation apparatus; and

said moving mechanism comprises a linear moving mechanism for said CT scanner so as to be movable to or from said common bed, and a curvedly moving mechanism for said irradiation apparatus so as to be movable in the circumferential direction around said common bed.

5. A composite system for radiation therapy according to claim 1, wherein said moving means comprises a

moving mechanism for curvedly moving said CT scanner and said irradiation apparatus, and linearly moving said CT scanner; and

said moving mechanism comprises a curvedly moving mechanism for said CT scanner so as to be movable in the circumferential direction around said common bed, and a curvedly moving mechanism for said irradiation apparatus so as to be movable in the circumferential direction around said common bed, and also comprises a linear moving mechanism for said CT scanner, wherein when said common bed is located in front of said CT scanner, said CT scanner is movable along the longitudinal direction to said common bed by said linear moving mechanism.

6. A composite system for radiation therapy according to claim 1, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and said common bed; and

said moving mechanism comprises a linear moving mechanism for said CT scanner, and a linear moving mechanism for said common bed, said linear moving mechanisms being disposed such that the movement directions of said CT scanner and said common bed cross each other,

wherein said CT scanner is disposed in parallel to said irradiation apparatus, and said common bed is movable between said CT scanner and said irradiation apparatus.

7. A composite system for radiation therapy according to claim 1, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and curvedly moving said common bed; and

said moving mechanism comprises a curvedly moving mechanism for said common bed, wherein said CT scanner and said irradiation apparatus are disposed in the vicinity of a curve along which said common bed is movable by said

curvedly moving mechanism, and also comprises a linear moving mechanism for said CT scanner, wherein when said common bed is located in front of said CT scanner, said CT scanner is movable along the longitudinal direction to said common bed by said linear moving mechanism.

8. A composite system for radiation therapy according to claim 7, wherein said curvedly moving mechanism for said common bed comprises a mechanism configured such that a turn table on which said common bed is mounted is installed on a floor face.

9. A composite system for radiation therapy according to claim 1, wherein said common bed comprises an isocentric rotation mechanism.

10. A composite system for radiation therapy according to claim 1, further comprising:

an X-ray simulator;

wherein said moving means further comprises a moving mechanism for further moving the patient on said common bed to a specific position of said X-ray simulator by causing either of linear movement of said CT scanner, said irradiation apparatus and X-ray simulator, linear movement of CT scanner and curved movement of said irradiation apparatus and said X-ray simulator, curved movement of said CT scanner, said irradiation apparatus and said X-ray simulator and linear movement of said CT scanner, linear movement of said CT scanner and said common bed, and linear movement of said CT scanner and curved movement of said common bed.

11. A composite system for radiation therapy according to claim 10, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner, said irradiation apparatus and said X-ray simulator; and said moving mechanism comprises a linear moving

mechanism for said CT scanner, a linear moving mechanism for said irradiation apparatus, and a linear moving mechanism for said X-ray simulator, said linear moving mechanisms being disposed such that the movement direction of said CT scanner and the movement direction of said irradiation apparatus and said X-ray simulator cross each other, and said common bed is disposed in the vicinity of a position to which said CT scanner, said irradiation apparatus and said X-ray simulator are movable.

12. A composite system for radiation therapy according to claim 10, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner, said irradiation apparatus and said X-ray simulator; and

said moving mechanism comprises a linear moving mechanism for said CT scanner, a linear moving mechanism for said irradiation apparatus and a linear moving mechanism for said X-ray simulator, said linear moving mechanisms being disposed such that the movement direction of said CT scanner and the movement direction of said irradiation apparatus and said X-ray simulator cross each other, and said common bed is disposed in the vicinity of a position to which said CT scanner, said irradiation apparatus and said X-ray simulator are movable, and

said CT scanner further includes a linear moving mechanism movable in same direction as the movement direction of said irradiation apparatus and said X-ray simulator.

13. A composite system for radiation therapy according to claim 10, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and curvedly moving said irradiation apparatus and said X-ray simulator; and

said moving mechanism comprises a linear moving

mechanism for said CT scanner so as to be movable to or from said common bed, a curvedly moving mechanism for said irradiation apparatus so as to be movable in the circumferential direction around said common bed, and a curvedly moving mechanism for said X-ray simulator so as to be movable in the circumferential direction around said common bed.

14. A composite system for radiation therapy according to claim 10, wherein said moving means comprises a moving mechanism for curvedly moving said CT scanner, said irradiation apparatus and said X-ray simulator, and linearly moving said CT scanner; and

said moving mechanism comprises a curvedly moving mechanism for said CT scanner so as to be movable in the circumferential direction around said common bed, a curvedly moving mechanism for said irradiation apparatus so as to be movable in the circumferential direction around said common bed and a curvedly moving mechanism for said X-ray simulator so as to be movable in the circumferential direction around said common bed, and also comprises a linear moving mechanism for said CT scanner, wherein when said common bed is located in front of said CT scanner, said CT scanner is movable along the longitudinal direction to said common bed by said linear moving mechanism.

15. A composite system for radiation therapy according to claim 10, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and said common bed; and

said moving mechanism comprises a linear moving mechanism for said CT scanner, and a linear moving mechanism for said common bed, said linear moving mechanisms being disposed such that the movement directions of said CT scanner and said common bed cross each other,

wherein said CT scanner is disposed in parallel to said irradiation apparatus, said irradiation apparatus is disposed in parallel to said X-ray simulator, and said common bed is movable between said CT scanner, said irradiation apparatus and said X-ray simulator.

16. A composite system for radiation therapy according to claim 10, wherein said moving means comprises a moving mechanism for linearly moving said CT scanner and curvedly moving said common bed; and

said moving mechanism comprises a curvedly moving mechanism for said common bed, wherein said CT scanner, said irradiation apparatus and said X-ray simulator are disposed in vicinity of a curve along which said common bed is movable by said curvedly moving mechanism, and also comprises a linear moving mechanism for said CT scanner, wherein when said common bed is located in front of said CT scanner, said CT scanner is movable along the longitudinal direction to said common bed by said linear moving mechanism.

17. A composite system for radiation therapy according to claim 16, wherein said curvedly moving mechanism for said common bed comprises a mechanism configured such that a turn table on which said common bed is mounted is installed on a floor face.

18. A composite system for radiation therapy according to claim 1, wherein a detectable region of said CT scanner has a diameter ranging from 1.5 to 3 m.

19. A composite system for radiation therapy according to claim 18, further comprising:

positional adjustment means;

wherein said positional adjustment means provided for said CT scanner, for adjusting the position of the patient in the lateral direction in a detectable region of

said CT scanner.

20. A composite system for radiation therapy, comprising:

a CT scanner for checking the position of an affected portion of a patient to be irradiated;

an irradiation apparatus for disposing, on the basis of positional information of the affected portion checked by said CT scanner, the patient at a specific position at which the affected portion is aligned to an irradiation position, and performing irradiation to the affected portion;

a common bed used for said CT scanner and said irradiation apparatus, in a state that the patient lies on said common bed,; and

moving means for moving the patient from said CT scanner to the specific position of said irradiation apparatus;

wherein said moving means moves the patient on said common bed to said specific position by causing linear movement of said CT scanner, said irradiation apparatus and said common bed; and

said moving mechanism comprises a linear moving mechanism for said CT scanner, and a linear moving mechanism for said irradiation apparatus, said linear moving mechanisms being disposed such that the movement directions of said CT scanner and said irradiation apparatus cross each other,; and

a first bed for said CT scanner, a second bed for said irradiation apparatus, and a moving member for linearly moving said common bed,

wherein said common bed is placed on the upper surface of at least one of said first bed and said second bed disposed in series, and is linearly moved between the



upper surface of said first bed and the upper surface of said second bed by said moving member.

21. A composite system for radiation therapy according to claims 20, wherein said moving member is one kind selected from a set of rollers, a set of wheels, a combination of rails and a sliding portion mounted on said moving rails, and a conveyor.

22. A composite system for radiation therapy according to claim 20, further comprising:

an X-ray simulator;

wherein said moving means further comprises a moving mechanism for further moving the patient on said common bed to a specific position of said X-ray simulator by causing linear movement of said CT scanner, said irradiation apparatus, said common bed and said X-ray simulator; and

said moving mechanism comprises a linear moving mechanism for said CT scanner, a linear moving mechanism for said irradiation apparatus and a linear moving mechanism for said X-ray simulator, said linear moving mechanisms being disposed such that the movement direction of said CT scanner and the movement direction of said irradiation apparatus and said X-ray simulator cross each other,; and

a first bed for said CT scanner, a second bed for said irradiation apparatus and for said X-ray simulator, and a moving member for linearly moving said common bed,

wherein said common bed is placed on the upper surface of at least one of said first bed and said second bed disposed in series, and is linearly moved between the upper surface of said first bed and the upper surface of said second bed by said moving member.

23. A composite system for radiation therapy according to claim 20, wherein a detectable region of said

CT scanner has a diameter ranging from 1.5 to 3 m.

24. A composite system for radiation therapy according to claim 23, further comprising:

positional adjustment means;

wherein said positional adjustment means provided for said CT scanner, for adjusting the position of the patient in the lateral direction in a detectable region of said CT scanner.